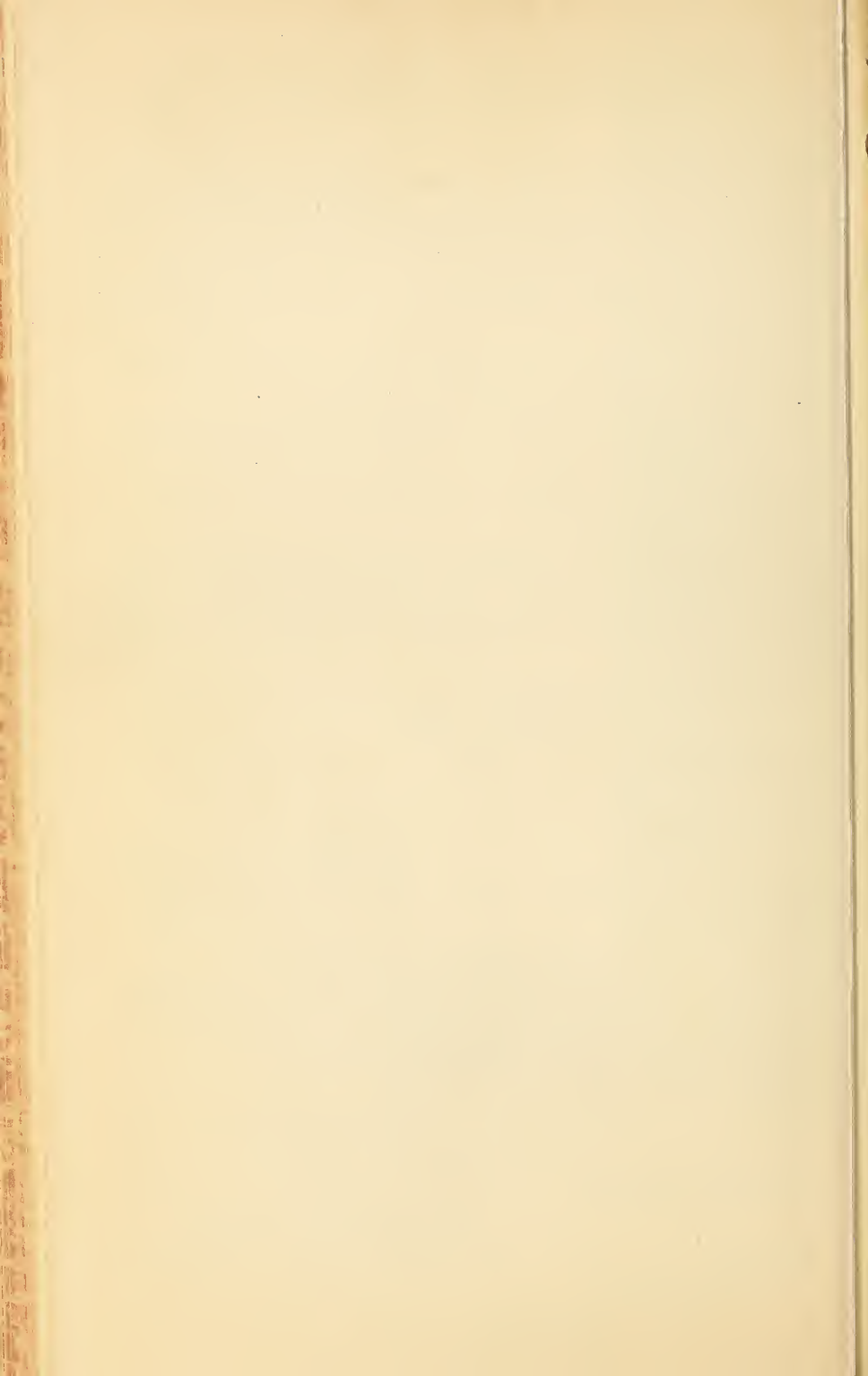


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# United States Department of Agriculture,

OFFICE OF THE SECRETARY—Circular No. 17.

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## STANDARDS OF PURITY FOR FOOD PRODUCTS.

(Supplementing Circular No. 13.)

### Supplemental Proclamation.

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Referring to Circular No. 13 of this Office, dated December twentieth, nineteen hundred and four, the following food standards are hereby established as supplemental to those proclaimed on the date above named.

JAMES WILSON,  
*Secretary.*

WASHINGTON, D. C., *March 8, 1906.*

The Honorable the SECRETARY OF AGRICULTURE.

SIR: The undersigned, representing respectively the Association of Official Agricultural Chemists of the United States and the Interstate Food Commission, and commissioned by you, under authority given by the act of Congress approved March 3, 1905, to collaborate with you "to establish standards of purity for food products and to determine what are regarded as adulterations therein," respectfully submit herewith for your consideration standards for certain articles belonging to the schedules of fruit and fruit products, flavoring extracts, edible vegetable oils, and salt, with the recommendation that they be approved and proclaimed the established standards.

The principles that have guided us in the formulation of these standards have been stated in connection with schedules earlier submitted.

The several schedules of additional standards recommended have been submitted, in a tentative form, to the manufacturing firms and the trade immediately interested, and also to the State food-control officials, for criticism.

To Prof. F. W. Woll, of the University of Wisconsin, referee on salt, the committee is indebted for the primary suggestion of a standard for table salt, based upon an extensive investigation of the composition of American salts.

Very respectfully,

WILLIAM FREAR,  
E. H. JENKINS,  
M. A. SCOVELL,  
H. A. WEBER,  
H. W. WILEY,

*Committee on Food Standards,  
Association of Official Agricultural Chemists.*

ELTON FULMER,  
*Representing the Interstate Food Commission.*

WASHINGTON, D. C., *March 8, 1906.*

## FOOD STANDARDS.

### II. VEGETABLE PRODUCTS.

#### B. FRUIT AND VEGETABLES.

##### a. FRUIT AND FRUIT PRODUCTS.

(Except fruit juices, fresh, sweet, and fermented, and vinegars.)

1. *Dried fruit* is the clean, sound product made by drying mature, properly prepared, fresh fruit<sup>1</sup> in such a way as to take up no harmful substance, and conforms in name to the fruit used in its preparation; *sun-dried fruit* is dried fruit made by drying without the use of artificial means; *evaporated fruit* is dried fruit made by drying with the use of artificial means.

2. *Evaporated apples* are evaporated fruit made from peeled and cored apples, and contain not more than twenty-seven (27) per cent of moisture.

(Standards for other dried fruits are in preparation.)

3. *Canned fruit* is the sound product made by sterilizing clean, sound, properly matured and prepared fresh fruit, by heating, with or without sugar (sucrose) and spices, and keeping in suitable<sup>2</sup> clean, hermetically sealed vessels, and conforms in name to the fruit used in its preparation.

4. *Preserve*<sup>3</sup> is the sound product made from clean, sound, properly matured and prepared fresh fruit and sugar (sucrose) sirup, with or without spices or vinegar, and conforms in name to that of the fruit used, and in its preparation not less than forty-five (45) pounds of fruit are used to each fifty-five (55) pounds of sugar.

5. *Honey preserve*<sup>3</sup> is preserve in which honey is used in place of sugar (sucrose) sirup.

6. *Glucose preserve*<sup>3</sup> is preserve in which a glucose product is used in place of sugar (sucrose) sirup.

7. *Jam (marmalade)*<sup>3</sup> is the sound product made from clean, sound, properly matured and prepared fresh fruit and sugar (sucrose), with or without spices or vinegar, by boiling to a pulpy or semisolid consistence, and conforms in name to the fruit used, and in its preparation not less than forty-five (45) pounds of fruit are used to each fifty-five (55) pounds of sugar.

8. *Glucose jam (glucose marmalade)*<sup>3</sup> is jam in which a glucose product is used in place of sugar (sucrose).

9. *Fruit butter*<sup>3</sup> is the sound product made from fruit juice and clean, sound, properly matured and prepared fruit, evaporated to a semisolid mass of homogeneous consistence, with or without the addition of sugar and spices or vinegar, and conforms in name to the fruit used in its preparation.

10. *Glucose fruit butter*<sup>3</sup> is fruit butter in which a glucose product is used in place of sugar (sucrose).

11. *Jelly*<sup>3</sup> is the sound, semisolid, gelatinous product made by boiling clean, sound, properly matured and prepared fresh fruit with water, concentrating the expressed and strained juice, to which sugar (sucrose) is added, and conforms in name to the fruit used in its preparation.

<sup>1</sup> The subject of sulphurous acid in dried fruits is reserved for consideration in connection with the schedule "Preservatives and Coloring Matters."

<sup>2</sup> The subject of suitable containers is reserved for future consideration.

<sup>3</sup> Products made with mixtures of sugar, glucose, and honey, or any two thereof, are reserved for future consideration.

12. *Glucose jelly*<sup>1</sup> is jelly in which a glucose product is used in place of sugar (sucrose).

#### D. CONDIMENTS (EXCEPT VINEGAR).

##### b. FLAVORING EXTRACTS.

1. A *flavoring extract*<sup>2</sup> is a solution in ethyl alcohol of proper strength of the sapid and odorous principles derived from an aromatic plant, or parts of the plant, with or without its coloring matter, and conforms in name to the plant used in its preparation.

2. *Almond extract* is the flavoring extract prepared from oil of bitter almonds, free from hydrocyanic acid, and contains not less than one (1) per cent by volume of oil of bitter almonds.

2a. *Oil of bitter almonds*, commercial, is the volatile oil obtained from the seed of the bitter almond (*Amygdalus communis* L.), the apricot (*Prunus armeniaca* L.), or the peach (*Amygdalus persica* L.).

3. *Anise extract* is the flavoring extract prepared from oil of anise, and contains not less than three (3) per cent by volume of oil of anise.

3a. *Oil of anise* is the volatile oil obtained from anise seed.

4. *Celery-seed extract* is the flavoring extract prepared from celery seed or the oil of celery seed, or both, and contains not less than three-tenths (0.3) per cent by volume of oil of celery seed.

4a. *Oil of celery seed* is the volatile oil obtained from celery seed.

5. *Cassia extract* is the flavoring extract prepared from oil of cassia, and contains not less than two (2) per cent by volume of oil of cassia.

5a. *Oil of cassia* is the lead-free, volatile oil obtained from the leaves or bark of *Cinnamomum cassia* Bl., and contains not less than seventy-five (75) per cent by weight of cinnamic aldehyde.

6. *Cinnamon extract* is the flavoring extract prepared from oil of cinnamon, and contains not less than two (2) per cent by volume of oil of cinnamon.

6a. *Oil of cinnamon* is the lead-free, volatile oil obtained from the bark of the Ceylon cinnamon (*Cinnamomum zeylanicum* Breyne), and contains not less than sixty-five (65) per cent by weight of cinnamic aldehyde and not more than ten (10) per cent by weight of eugenol.

7. *Clove extract* is the flavoring extract prepared from oil of cloves, and contains not less than two (2) per cent by volume of oil of cloves.

7a. *Oil of cloves* is the lead-free, volatile oil obtained from cloves.

8. *Ginger extract* is the flavoring extract prepared from ginger, and contains, in each one hundred (100) cubic centimeters, at 20° C., the alcohol-soluble matters from twenty (20) grams of ginger.

9. *Lemon extract* is the flavoring extract prepared from oil of lemon, or from lemon peel, or both, and contains not less than five (5) per cent by volume of oil of lemon.

9a. *Oil of lemon* is the volatile oil obtained, by expression or alcoholic solution, from the fresh peel of the lemon (*Citrus limonum* L.), has an optical rotation (25° C.) of not less than +60° in a 100-millimeter tube, and contains not less than four (4) per cent by weight of citral.

10. *Terpeneless extract of lemon* is the solution prepared by shaking oil of lemon with dilute alcohol, and contains not less than two-tenths (0.2) per cent by weight of citral derived from the oil of lemon.

<sup>1</sup> Products made with mixtures of sugar, glucose, and honey, or any two thereof, are reserved for future consideration.

<sup>2</sup> The flavoring extracts herein described are intended solely for food purposes and are not to be confounded with similar preparations described in the Pharmacopœia for medicinal purposes.



11. *Nutmeg extract* is the flavoring extract prepared from oil of nutmeg, and contains not less than two (2) per cent by volume of oil of nutmeg.

11a. *Oil of nutmeg* is the volatile oil obtained from nutmegs.

12. *Orange extract* is the flavoring extract prepared from oil of orange, or from orange peel, or both, and contains not less than five (5) per cent by volume of oil of orange.

12a. *Oil of orange* is the volatile oil obtained, by expression or alcoholic solution, from the fresh peel of the orange (*Citrus aurantium* L.), and has an optical rotation (25° C.) of not less than + 95° in a 100-millimeter tube.

13. *Peppermint extract* is the flavoring extract prepared from oil of peppermint, or from peppermint, or both, and contains not less than three (3) per cent by volume of oil of peppermint.

13a. *Peppermint* is the leaves and flowering tops of *Mentha piperita* L.

13b. *Oil of peppermint* is the volatile oil obtained from peppermint, and contains not less than fifty (50) per cent of menthol.

14. *Rose extract* is the flavoring extract prepared from otto of roses, with or without red rose petals, and contains not less than four-tenths (0.4) per cent by volume of otto of roses.

14a. *Otto of roses* is the volatile oil obtained from the petals of *Rosa damascena* Mill., *R. centifolia* L., or *R. moschata* Herrm.

15. *Savory extract* is the flavoring extract prepared from oil of savory, or from savory, or both, and contains not less than thirty-five hundredths (0.35) per cent by volume of oil of savory.

15a. *Oil of savory* is the volatile oil obtained from savory.

16. *Spearmint extract* is the flavoring extract prepared from oil of spearmint, or from spearmint, or both, and contains not less than three (3) per cent by volume of oil of spearmint.

16a. *Spearmint* is the leaves and flowering tops of *Mentha spicata* L.

16b. *Oil of spearmint* is the volatile oil obtained from spearmint.

17. *Star anise extract* is the flavoring extract prepared from oil of star anise, and contains not less than three (3) per cent by volume of oil of star anise.

17a. *Oil of star anise* is the volatile oil distilled from the fruit of the star anise (*Illicium verum* Hook.).

18. *Sweet basil extract* is the flavoring extract prepared from oil of sweet basil, or from sweet basil, or both, and contains not less than one-tenth (0.1) per cent by volume of oil of sweet basil.

18a. *Sweet basil* or *basil* is the leaves and tops of *Ocimum basilicum* L.

18b. *Oil of sweet basil* is the volatile oil obtained from sweet basil.

19. *Sweet marjoram extract* (*marjoram extract*) is the flavoring extract prepared from oil of marjoram, or from marjoram, or both, and contains not less than one (1) per cent by volume of oil of marjoram.

19a. *Oil of marjoram* is the volatile oil obtained from marjoram.

20. *Thyme extract* is the flavoring extract prepared from oil of thyme, or from thyme, or both, and contains not less than two-tenths (0.2) per cent by volume of oil of thyme.

20a. *Oil of thyme* is the volatile oil obtained from thyme.

21. *Tonka extract* is the flavoring extract prepared from tonka bean, with or without sugar or glycerin, and contains not less than one-tenth (0.1) per cent by weight of coumarin extracted from the tonka bean, together with a corresponding proportion of the other soluble matters thereof.

21a. *Tonka bean* is the seed of *Coumarouna odorata* Aublet [*Dipteryx odorata* (Aubl.) Willd.].

22. *Vanilla extract* is the flavoring extract prepared from vanilla bean, with

or without sugar or glycerin, and contains in one hundred (100) cubic centimeters the soluble matters from ten (10) grams of the vanilla bean.

22a. *Vanilla bean* is the dried, cured fruit of *Vanilla planifolia* Andrews.

23. *Wintergreen extract* is the flavoring extract prepared from oil of wintergreen, and contains not less than three (3) per cent by volume of oil of wintergreen.

23a. *Oil of wintergreen* is the volatile oil distilled from the leaves of *Gaultheria procumbens* L.

#### C. EDIBLE VEGETABLE OILS.

1. *Olive oil* is the oil obtained from the sound, mature fruit of the cultivated olive tree (*Olea europaea* L.) and subjected to the usual refining processes; it is free from rancidity; has a refractive index (25° C.) not less than one and forty-six hundred and sixty ten-thousandths (1.4660) and not exceeding one and forty-six hundred and eighty ten-thousandths (1.4680); and an iodine number not less than seventy-nine (79) and not exceeding ninety (90).

2. *Virgin olive oil* is olive oil obtained from the first pressing of carefully selected, hand-picked olives.

3. *Cotton-seed oil* is the oil obtained from the seeds of cotton plants (*Gossypium hirsutum* L., *G. barbadense* L., or *G. herbaceum* L.) and subjected to the usual refining processes; it is free from rancidity; has a refractive index (25° C.) not less than one and forty-seven hundred ten-thousandths (1.4700) and not exceeding one and forty-seven hundred and twenty-five ten-thousandths (1.4725); and an iodine number not less than one hundred and four (104) and not exceeding one hundred and ten (110).

4. "*Winter-yellow*" *cotton-seed oil*<sup>1</sup> is expressed cotton-seed oil from which a portion of the stearin has been separated by chilling and pressure.

5. *Peanut oil*, *arachis oil*, or *earth-nut oil* is the oil obtained from the peanut (*Arachis hypogaea* L.) and subjected to the usual refining processes; it is free from rancidity; has a refractive index (25° C.) not less than one and forty-six hundred and ninety ten-thousandths (1.4690) and not exceeding one and forty-seven hundred and seven ten-thousandths (1.4707); and an iodine number not less than eighty-seven (87) and not exceeding one hundred (100).

6. "*Cold-drawn*" *peanut oil* is peanut oil obtained by pressure without heating.

7. *Sesame oil*, *gingili oil*, or *teel oil* is the oil obtained from the seeds of the sesame plant (*Sesamum orientale* L.) and subjected to the usual refining processes; it is free from rancidity; has a refractive index (25° C.) not less than one and forty-seven hundred and four ten-thousandths (1.4704) and not exceeding one and forty-seven hundred and seventeen ten-thousandths (1.4717); and an iodine number not less than one hundred and three (103) and not exceeding one hundred and twelve (112).

8. "*Cold-drawn*" *sesame oil* is sesame oil obtained by pressure without heating.

9. *Poppy-seed oil*<sup>1</sup> is the oil obtained from the seed of the poppy (*Papaver somniferum* L.), subjected to the usual refining processes and free from rancidity.

10. *White poppy-seed oil* or "*cold-drawn*" *poppy-seed oil* is poppy-seed oil of the first pressing without heating.

11. *Coconut oil*<sup>1</sup> is the oil obtained from the kernels of the coconut (*Cocos nucifera* L.), subjected to the usual refining processes and free from rancidity.

12. *Cochin oil* is coconut oil prepared in Cochin (Malabar).

13. *Ceylon oil* is coconut oil prepared in Ceylon.

14. *Copra oil* is coconut oil prepared from copra, the dried kernels of the coconut.

<sup>1</sup> The fixing of limits for chemical and physical properties is reserved for future consideration.



15. *Rape-seed oil* or *colza oil*<sup>1</sup> is the oil obtained from the seeds of the rape plant (*Brassica napus* L.), subjected to the usual refining processes and free from rancidity.

16. "Cold-drawn" *rape-seed oil* is rape-seed oil obtained by the first pressing without heating.

17. *Sunflower oil*<sup>1</sup> is the oil obtained from the seeds of the sunflower (*Helianthus annuus* L.), subjected to the usual refining processes and free from rancidity.

18. "Cold-drawn" *sunflower oil* is sunflower oil obtained by the first pressing without heating.

19. *Maize oil* or *corn oil*<sup>1</sup> is the oil obtained from the germ of the maize grain (*Zea mays* L.), subjected to the usual refining processes and free from rancidity.

### III. SALT.

1. *Table salt* (*dairy salt*) is fine-grained crystalline salt containing, on a water-free basis, not more than one and four-tenths (1.4) per cent of calcium sulphate ( $\text{CaSO}_4$ ), nor more than five-tenths (0.5) per cent of calcium and magnesium chlorids ( $\text{CaCl}_2$  and  $\text{MgCl}_2$ ), nor more than one-tenth (0.1) per cent of matters insoluble in water.

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<sup>1</sup> The fixing of limits for chemical and physical properties is reserved for future consideration.

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